#### HIV and STD in Maine

# Data from the Bureau of Health HIV/STD Program

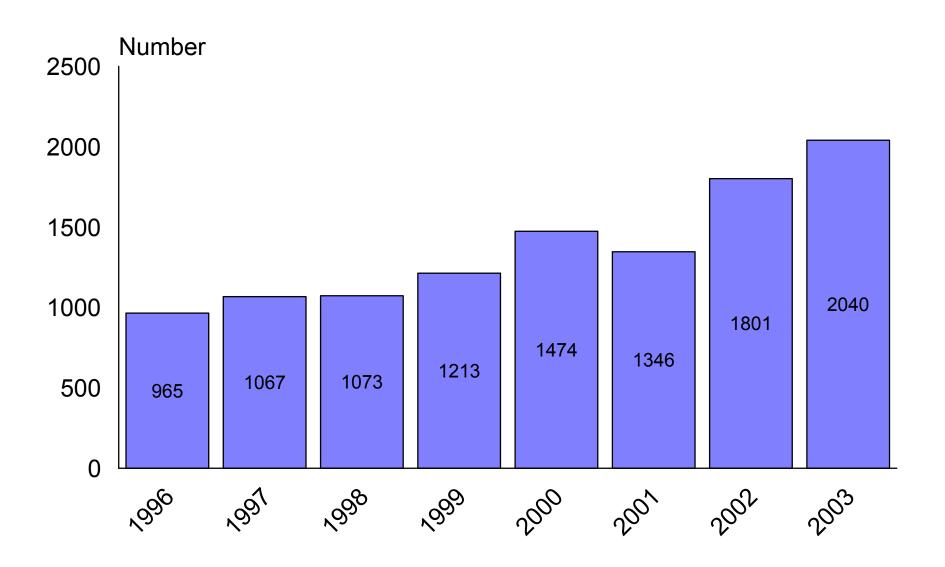
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### Reportable STDs in Maine

- The Bureau of Health collects data about the following sexually transmitted diseases:
  - Chlamydia Syphilis
  - Gonorrhea HIV/AIDS
- The following slides highlight data for the above illnesses and reflect disease reports received through December 31, 2003.
- Maine physicians and clinical labs are required to report diagnosis of these STDs to the Bureau of Health within 48 hours.\* Disease reports provide critical public health information; this slide set is one example of how these data are used.

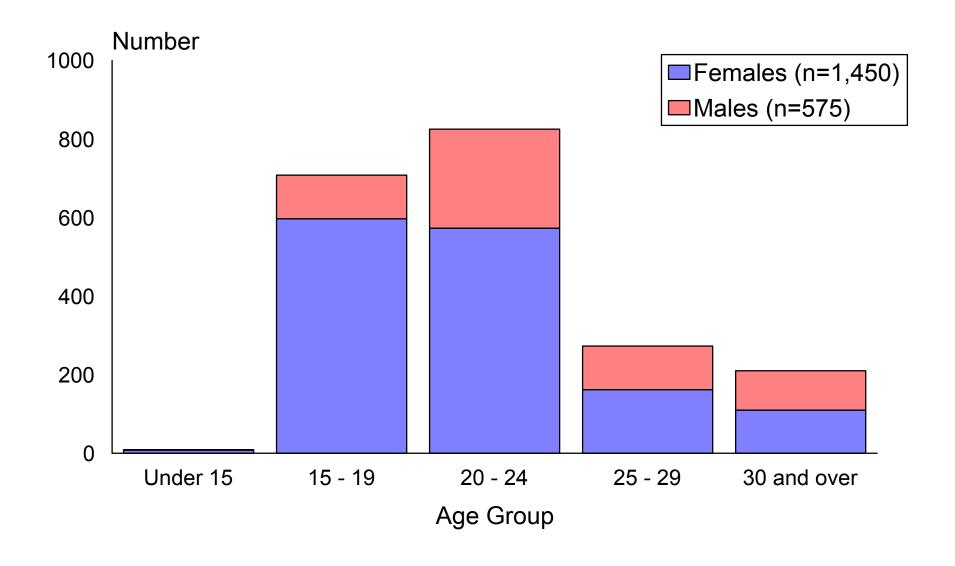
<sup>\*</sup>For more information about reporting requirements, contact Mark Griswold at (207) 287-5193 or mark.griswold@maine.gov

Figure 1: Maine Chlamydia Diagnoses, 1996 to 2003



- Figure 1 shows chlamydia diagnoses reported to the Maine Bureau of Health from 1996 to 2003.
- Chlamydia is the most-frequently reported STD in the state.
   During 2003, more than 2000 cases were reported.
- Apart from a slight decline in 2001, the number of diagnoses increased each year between 1996 and 2003.
- The number of 2003 reports represents an increase of 13% over the 2002 total.
- Some of the recent increase may be attributed to a new, more sensitive chlamydia test that health care providers began using in 2002 and 2003.

Figure 2: 2003 Chlamydia Diagnoses by Age Group (total = 2,025)



- Figure 2 shows 2003 chlamydia diagnoses by age group and by sex, excluding cases where age was not reported
- People 24 years old and under are disproportionately affected by this disease, accounting for 77% of all 2003 cases.
- Females are diagnosed with chlamydia much more often than males, comprising almost three-quarters of reports. This does not mean greater numbers of women are infected with the disease; women are tested for the disease more frequently than men, and may be more likely to exhibit symptoms of the disease.

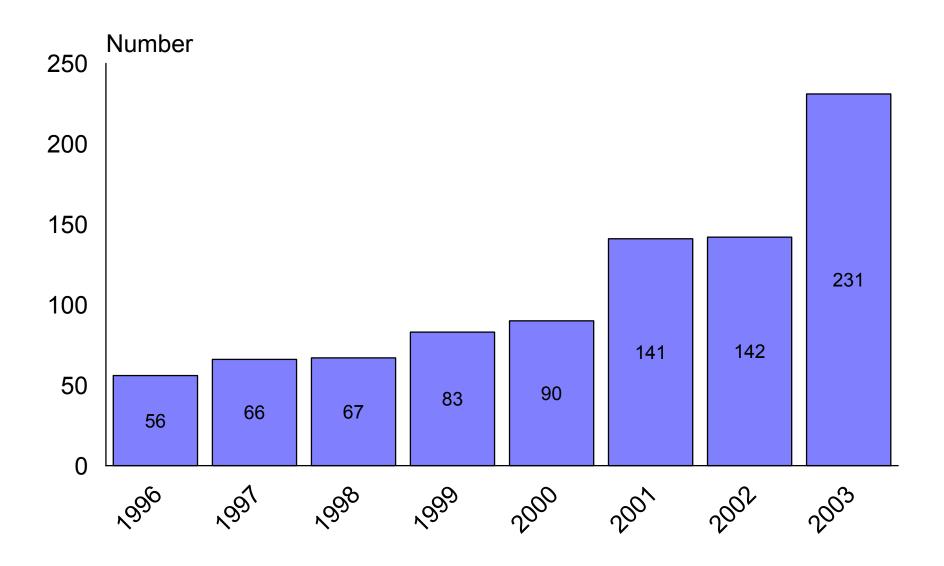
Table 1: 2003 Chlamydia Rates per 100,000 Population, by County (Counties are rank-ordered by rate.)

County	Rate per 100,000 pop.	No. of Cases
Androscoggin	278.4	289
Penobscot	198.7	288
Cumberland	182.6	485
Kennebec	169.1	198
State of Maine	160.1	2033
Aroostook	148.8	110
Franklin	145.9	43
Sagadahoc	144.8	51
Washington	138.5	47
Oxford	137.1	75
Knox	136.3	54
York	118.3	221
Hancock	100.4	52
Somerset	92.4	47
Lincoln	92.2	31
Waldo	79.9	29
Piscataquis	75.4	13

#### Comments, Table 1

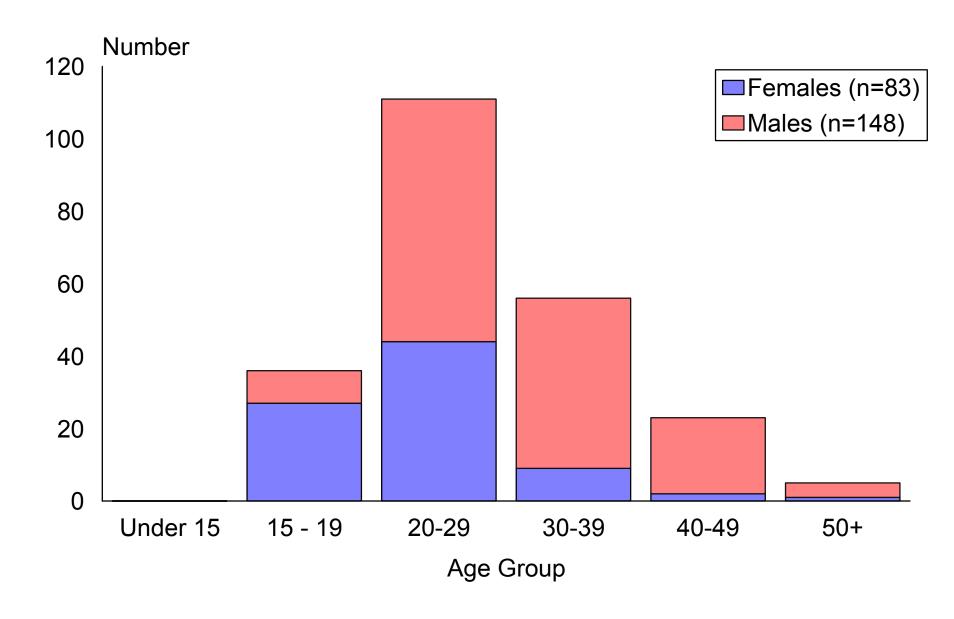
- Table 1 lists the number of 2003 chlamydia diagnoses and rate per 100,000 population by county, with counties listed in rank order by rate. The statewide rate is included in the rank order. Cases reported without county of residence were excluded.
- Androscoggin, Penobscot, Cumberland and Kennebec Counties have chlamydia rates that are higher than the statewide rate.

Figure 3: Maine Gonorrhea Diagnoses, 1996 to 2003



- Figure 3 shows gonorrhea diagnoses reported to the Maine Bureau of Health from 1996 to 2003.
- Gonorrhea diagnoses have steadily increased during the past six years, with a dramatic rise in 2001 that was sustained in 2002 and surpassed during 2003.
- Two hundred thirty-one cases were diagnosed in 2003, representing a 63% increase over the 2002 total.

Figure 4: 2003 Gonorrhea Diagnoses by Age Group (total = 231)



- Figure 4 shows 2003 gonorrhea diagnoses by age group and sex.
- Gonorrhea affects a slightly older age range than chlamydia. Just under half of 2003 diagnoses occurred in the 20-29 age range, and 16% were less than 20 years-old.
- Males comprised almost two-thirds of all gonorrhea diagnoses. This is due in large part to diagnoses among males who have sex with males (MSM), who accounted for approximately 40% of all cases reported in 2003.

#### Gonorrhea and MSM

- Males who have sex with Males (MSM) accounted for approximately 40% of all cases reported in 2003.
- Twenty percent of MSM diagnosed with gonorrhea in 2003 were co-infected with HIV. Overall, just under 10% of 2003 gonorrhea diagnoses occurred among HIV+ MSM.
- Since gonorrhea and HIV are both transmitted sexually, an upswing in MSM gonorrhea may suggest that more gay and bisexual men are engaging in unprotected sex, and are therefore at greater risk for HIV infection.
- In addition, a person infected with an ulcerative STD like gonorrhea or syphilis
  has a higher chance of becoming infected with HIV if they have sex with an HIVpositive person. Likewise, an HIV-positive person who has gonorrhea or
  syphilis is more likely to pass their HIV infection on to sexual partners.

Table 2: 2003 Gonorrhea Rates per 100,000 Population, by County

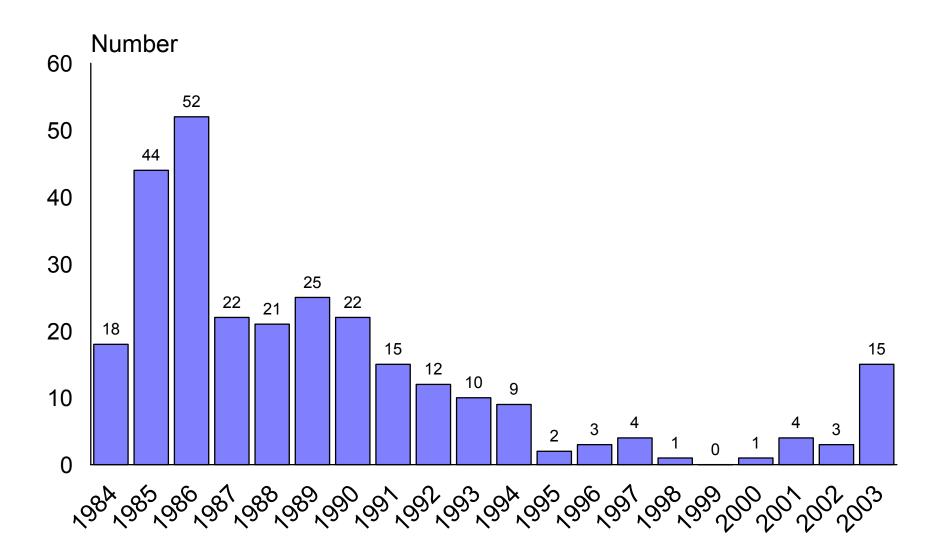
(Counties are rank-ordered by rate.)

County	Rate per 100,000 pop.	No. of Cases
Androscoggin	52.1	54
Cumberland	32.8	87
Kennebec	22.2	26
State of Maine	18.1	231
York	17.7	33
Penobscot	10.4	15
Franklin	6.8	2
Waldo	5.5	2
Hancock	3.9	2
Somerset	3.9	2
Oxford	3.7	2
Lincoln	3.1	1
Washington	2.9	1
Sagadahoc	2.8	1
Aroostook	2.7	2
Knox	2.5	1
Piscataquis	0	0

#### Comments, Table 2

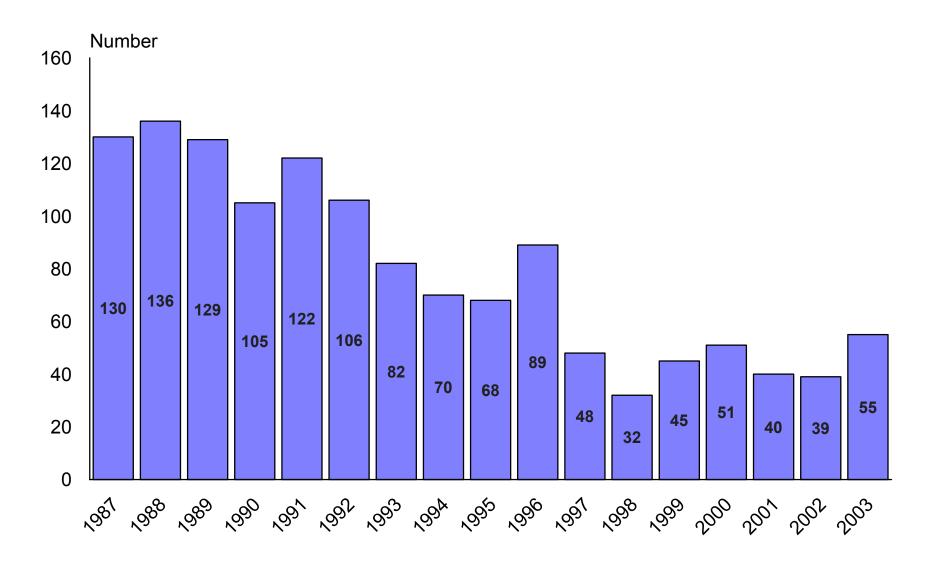
- Table 2 lists the number of 2003 gonorrhea diagnoses and rate per 100,000 population by county, with counties listed in rank order by rate. The statewide rate is included in the rank order.
- Three counties, Androscoggin, Cumberland and Kennebec, have GC rates that are higher than the statewide rate.

Figure 5: Infectious Syphilis Diagnoses in Maine, 1984-2003



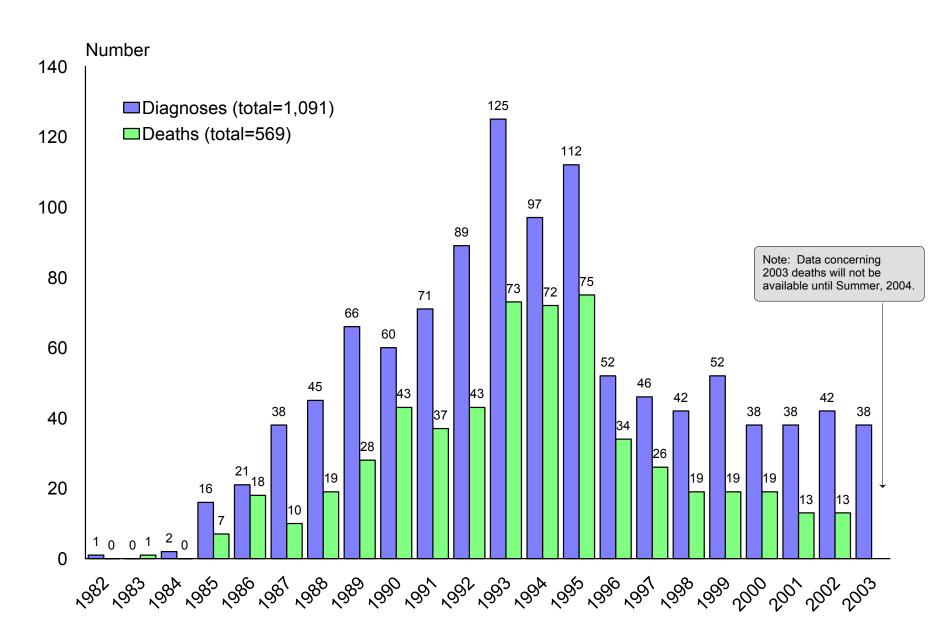
- Figure 5 shows shows primary and secondary syphilis diagnoses in Maine during the past two decades, since 1984. After peaking in the mid-1980s, syphilis steadily declined until 1999, when there were no diagnoses reported in the state.
- During 2003, syphilis reemerged as in infectious disease of note in Maine, with 15 diagnoses reported. This total is greater than any annual total since 1991.
- Although the number of syphilis cases is low when compared to other sexually transmitted infections, its sudden reappearance in Maine is cause for concern: like gonorrhea, a large proportion of syphilis diagnoses, roughly half, occurred among MSM. Some MSM diagnosed with syphilis were also infected with HIV.
- Most cases occurred in the southern or central regions of the state.

Figure 6: Maine HIV Diagnoses, 1987 to 2003



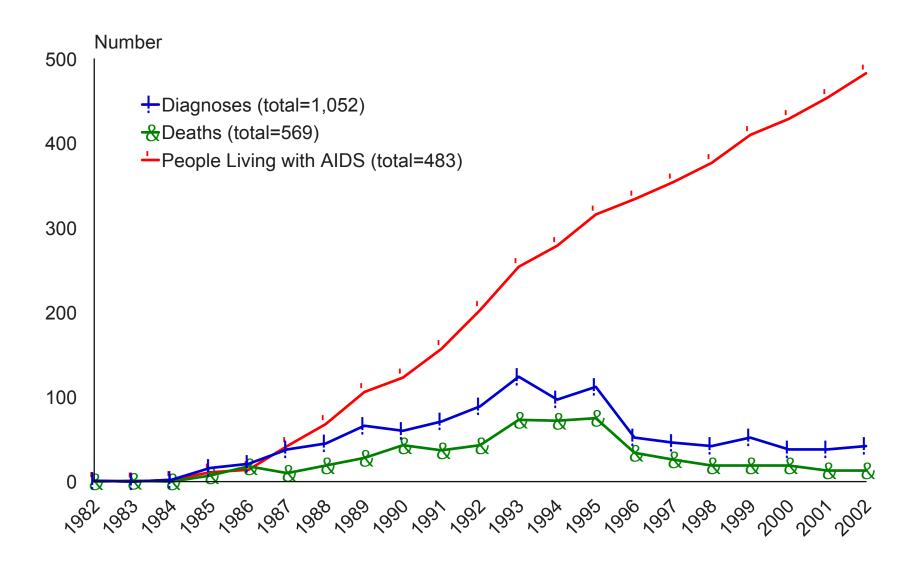
- Figure 6 illustrates annual totals of new HIV diagnoses in Maine, spanning the years 1987 to 2003.
- Annual totals of new HIV diagnoses declined steadily from the late 1980s and have remained relatively stable in recent years.
- Fifty-five new HIV diagnoses were reported during 2003, including 6 women and 49 men. This total represents an increase over last year, and is the largest number of diagnoses seen since 1996.
- It's important to note that not all new HIV diagnoses represent new infections. During the past 5 years about 45% of people diagnosed with HIV were ill enough to be classified with AIDS within 6 months of their initial HIV+ test, likely indicating that they'd been infected with HIV for a long while.
- Approximately 1,200 people are estimated to be living with HIV in Maine. Up to one-third of these individuals may not be aware of their HIV infection.

Figure 7: Maine AIDS Cases and Deaths Among Persons with AIDS, 1982 to 2003



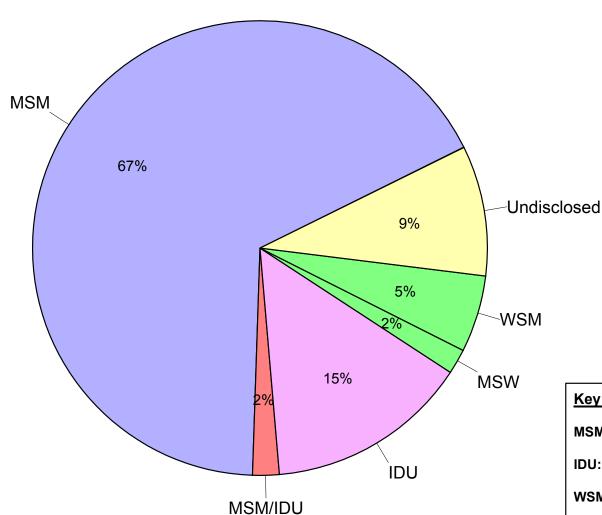
- Figure 7 illustrates Maine AIDS diagnoses by year of diagnosis from 1982 to 2003, and reported deaths among persons with AIDS from 1982 to 2002. Forty-two people were diagnosed with AIDS in Maine during 2002, with 13 deaths. So far, 38 AIDS diagnoses have been reported as occurring in 2003, although this number will likely increase because of reporting delays.
- These data do not reflect persons who were diagnosed with AIDS outside of Maine and subsequently moved to the state.
- The figure shows a general decline in both new diagnoses and deaths, with the number of deaths in recent years at it's lowest point since the 1980's. The number of new diagnoses has remained steady during the past four years, with between 38 and 42 new diagnoses per year.
- Overall declines in diagnoses and deaths among persons with AIDS are due in large part to widespread use of effective medical treatments for HIV disease.

Figure 8: Maine AIDS Cases, Deaths and AIDS Prevalence, 1982 to 2002



- Figure 8 shows three trend lines spanning the years 1982 to 2002: the blue line with circular points represents new Maine AIDS diagnoses by year of diagnosis; the green line with diamond-shaped points shows annual deaths; and the red line with triangular points shows the total number of people living with AIDS.
- Each year since 1985 there have been more new AIDS diagnoses than deaths, meaning that the overall number of people living with AIDS has continued to increase over time. These data suggest that there are more people living with HIV/AIDS in Maine than ever before.

Figure 9: Mode of Transmission of 2003 Maine HIV Diagnoses (total = 55)



#### **Key to Abbreviations:**

MSM: Men who have sex with men

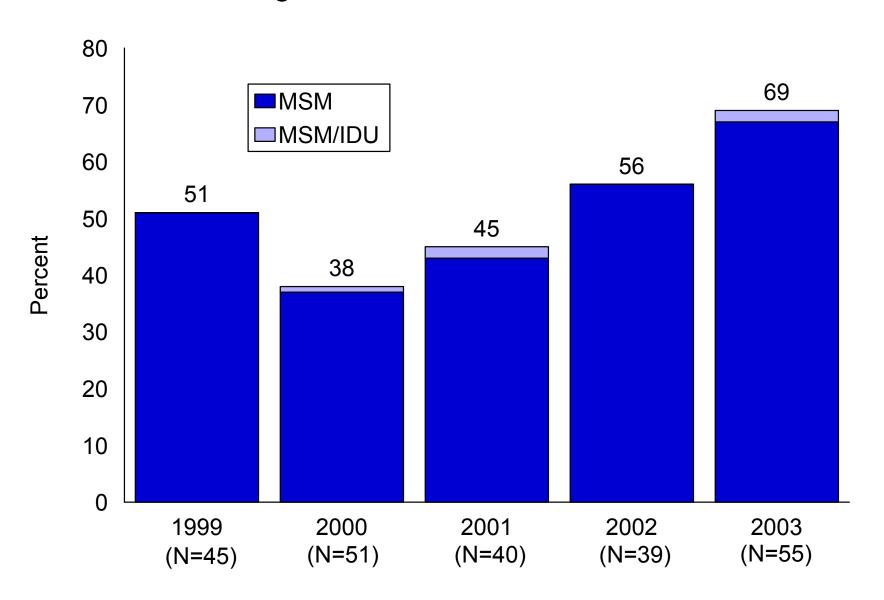
IDU: Injection drug users

WSM: Women who have sex with men

MSW: Men who have sex with women

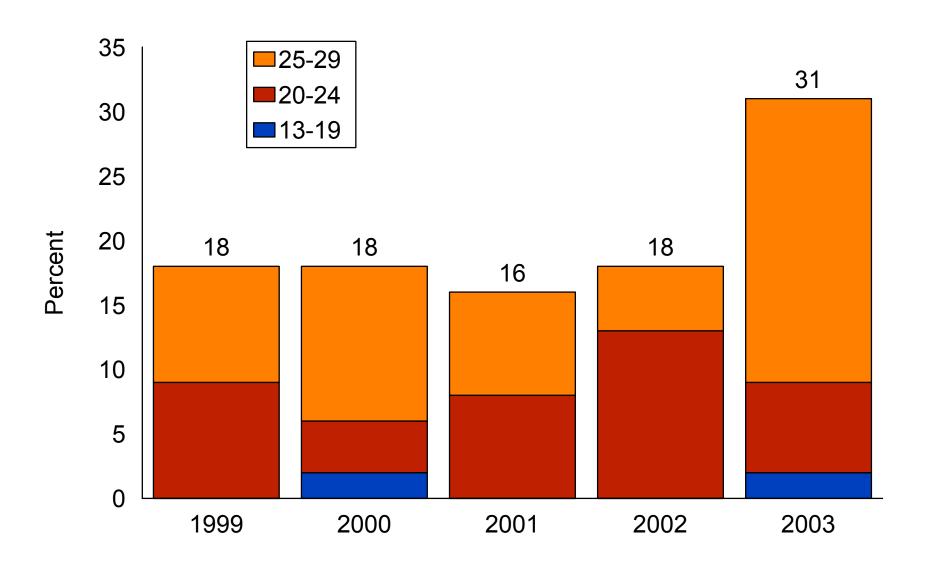
- Figure 9 shows the mode of transmission of 2003 Maine HIV diagnoses.
- About two-thirds of diagnoses were attributed to male-to-male sexual contact, followed by sharing needles during injection drug use, at 15%, and heterosexual contact with an at-risk partner, at 7%.
- Mode of transmission was unknown or undisclosed for 9% of diagnoses. These includes individuals who reported heterosexual contact but were unable to identify an at-risk sex partner. An at-risk partner is defined as a person who is either MSM, IDU, or HIV-infected.

Figure 10: Proportion of MSM HIV diagnoses in Maine, 1999 to 2003



- Figure 10 shows the annual proportion of Maine HIV diagnoses attributed to males who have sex with males (MSM) or to people with a combined risk of male to male sex and injection drug use (MSM/IDU) for the years 1999 through 2003.
- The proportion of HIV diagnoses among MSM has increased each year for the past three years.
- During 2003, MSM comprised more than 2/3 of all HIV diagnoses.
- It is possible that this increase in the proportion of infections among MSM may be related to increases in both gonorrhea and syphilis diagnoses in this population.
- Anecdotal information indicates that approximately half of all MSM diagnosed with HIV this year appear to have been infected within the past 12 months.

Figure 11: Proportion of People Under 30 y.o. Diagnosed with HIV in Maine, 1999 to 2003



- Figure 11 shows the annual proportions of people under 30 years-old diagnosed with HIV in Maine, for the years 1999 to 2002.
- This year, a larger proportion of people under 30 were diagnosed with HIV. From 1999 to 2002, 16% to 18% of newlydiagnosed people were under 30. During 2003, this proportion almost doubled, reaching 31%.
- The greater proportion of HIV diagnoses among young people is due in part to an increase in the number of MSM under 30 testing positive for HIV. Of MSM diagnosed with HIV last year, 41% were under 30 years of age.

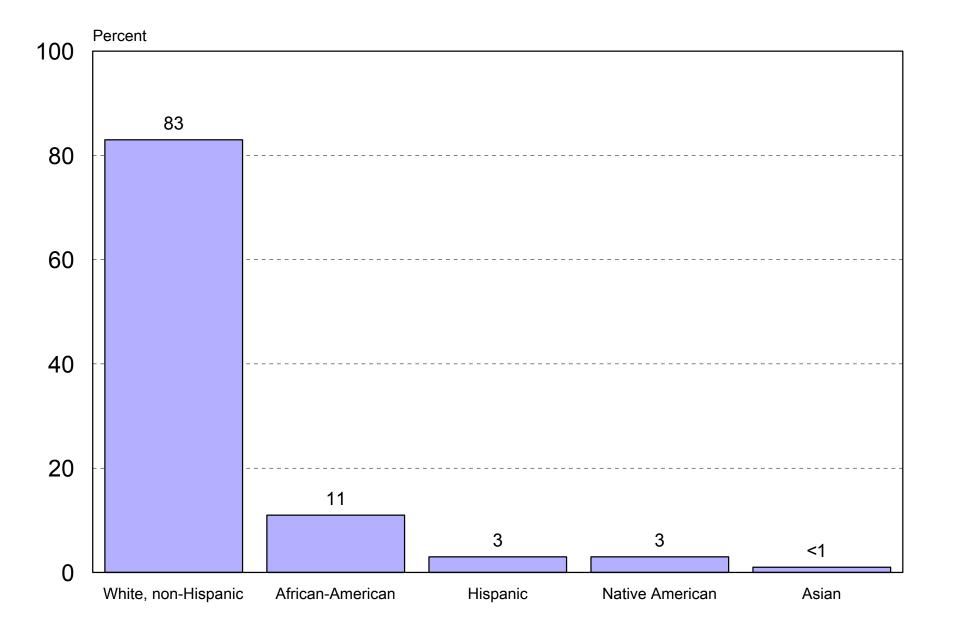
Table 3: 2003 Maine HIV Diagnoses by County (total = 55)

County	No. of Cases
Cumberland	20
Penobscot	6
Kennebec	5
Knox	5
Lincoln	4
York	4
Androscoggin	3
Aroostook	3
Hancock	2
Oxford	1
Somerset	1
Washington	1
Franklin	0
Piscataquis	0
Sagadahoc	0
Waldo	0

#### Comments, Table 3

- Table 3 lists 2003 Maine HIV diagnoses by county, with counties listed in rank order by number of diagnoses.
- With 20 diagnoses last year, Cumberland County had more than three times the number of any other county in the state.

Figure 12: Race/Ethnicity of Maine HIV Diagnoses, 1999-2003 (total=229)



- Figure 12 shows the race/ethnicity of people in Maine diagnosed with HIV during the period 1999 to 2003.
- The majority of cases, 83%, were among non-Hispanic Whites.
- While the non-White and Hispanic population of Maine comprises approximately 3% of the state's total population (2000 US Census), 17% of people diagnosed during the past five years were from racial/ethnic minority groups. The most prominently represented among these groups are African-Americans, comprising 11% of total diagnoses.

## **Concluding Points**

- During 2003, Maine saw increased numbers of diagnoses for all reportable sexually transmitted diseases, including chlamydia, gonorrhea, syphilis, and HIV.
- The number of new AIDS diagnoses has remained stable during the past four years.
- The number of people living in Maine with HIV/AIDS is approximately 1,200, and is likely on the increase.
- The majority of recent HIV diagnoses have been among non-Hispanic Whites. Nonetheless, certain racial and ethnic minorities are disproportionately affected by HIV in Maine, accounting for approximately 17% of diagnoses during the past five years.

- Young people continue to be at increased risk for STDs. People under 30 years old accounted for almost all chlamydia diagnoses, over half of gonorrhea and nearly one-third of HIV diagnoses.
- Preliminary data suggest that the number of HIV infections may be increasing among young men who have sex with men (MSM) in Maine.
- During 2003, MSM comprised 67% of HIV diagnoses, 40% of gonorrhea diagnoses and about half of syphilis diagnoses.
- Twenty percent of MSM diagnosed with gonorrhea in 2003 were coinfected with HIV, as were several MSM diagnosed with syphilis.
- Over the past five years, an increasing proportion of MSM have been diagnosed with HIV. Increases in gonorrhea and syphilis diagnoses in this population may mean that more HIV infections are occurring, as well.